

AMENDMENT TO CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A hierarchical test control network for an integrated circuit, comprising:
a top-level test control circuit block, said top-level test control circuit block comprising a chip access port (CAP) controller; and
a plurality of lower-level test control circuit blocks connected to said top-level test control circuit block in a hierarchical structure, each of said lower-level test control circuit blocks comprising a socket access port (SAP) controller;
wherein test operation is transferred downward and upwards within said hierarchical structure.

Claims 2-14 (Previously cancelled).

15. (Previously presented) The hierarchical test control network of claim 1, wherein the lower-level test control circuit blocks are connected in a serial chain.
16. (Previously presented) The hierarchical test control network of claim 1, wherein each of said lower-level test control circuit blocks is connected to a different virtual circuit block for controlling testing thereof.
17. (Previously presented) The hierarchical test control network of claim 1, wherein each of said lower-level test control circuit blocks comprises a test mode select input port, a test data input port, and a test data output port.
18. (Previously presented) The hierarchical test control network of claim 1, wherein said top-level test control circuit block and said plurality of lower-level test control circuit blocks are organized in a plurality of tiers.

19. (Previously presented) The hierarchical test control network of claim 18, wherein all of the lower-level test control circuit blocks connected at a same tier collectively output a common test mode data output signal comprising a logical OR of individual test mode data output signals output from each of the lower-level test control circuit blocks connected at the same tier.
20. (Previously presented) A hierarchical test control network for an integrated circuit, comprising:
 - means for controlling a chip access port (CAP) of a top-level test control circuit block;
 - means for controlling a plurality of socket access ports (SAPs) for a plurality of lower-level test control circuit blocks, each lower-level test control circuit block connected to said top-level test control circuit block in a hierarchical structure; and
 - means for transferring test operation downward and upwards within said hierarchical structure.
21. (Previously presented) The hierarchical test control network of claim 20, wherein the lower-level test control circuit blocks are connected in a serial chain.
22. (Previously presented) The hierarchical test control network of claim 20, wherein each of said lower-level test control circuit blocks is connected to a different virtual circuit block for controlling testing thereof.
23. (Previously presented) The hierarchical test control network of claim 20, wherein each of said lower-level test control circuit blocks comprises a test mode select input port, a test data input port, and a test data output port.

Claims 24-30 (Cancelled).